

CLAIMS

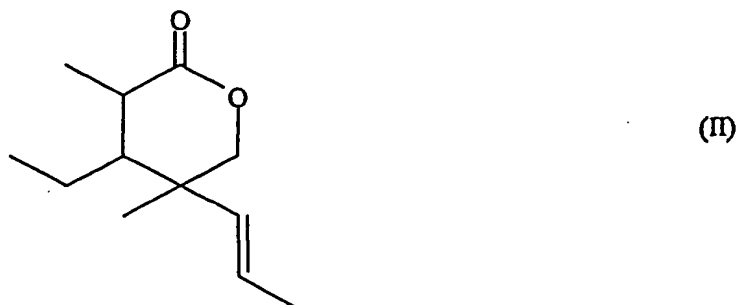
1. A valerolactone compound represented by the formula (I):



- 5 wherein each of  $R^1$  and  $R^2$  is independently a hydrogen atom, a methyl group or an ethyl group, wherein when  $R^1$  is a hydrogen atom,  $R^2$  is not a hydrogen atom; and wherein when  $R^2$  is a hydrogen atom,  $R^1$  is not a hydrogen atom,  $R^3$  is a hydrogen atom or a methyl group, and  $R^4$  is a propyl group, a 1-propenyl group or a phenyl group.

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2. A valerolactone compound represented by the formula (II):

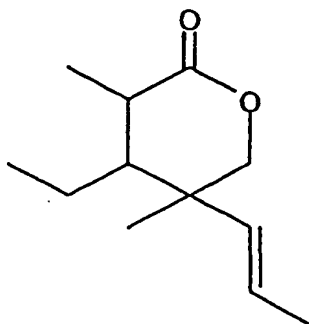


3. The valerolactone compound according to claim 2, obtained by acting a  
15 base on propanal, and treating the resulting reaction solution with an acid.

4. The valerolactone compound according to claim 3, wherein said base is one or more compounds selected from the group consisting of potassium hydroxide, sodium hydroxide, potassium methoxide and sodium methoxide.

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5. A process for preparing a valerolactone represented by the formula (II):

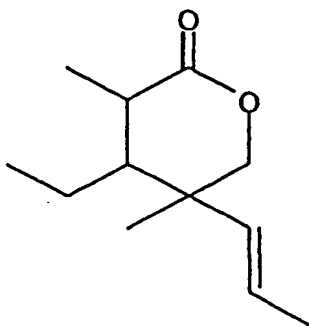


(II)

comprising acting a base on propanal, and treating the resulting reaction solution with an acid.

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6. A process for preparing a valerolactone represented by the formula (II):

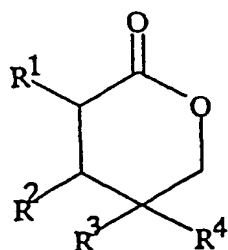


(II)

comprising acting a base on 2-methyl-2-pentenal, and treating the resulting reaction solution with an acid.

7. The process for preparing a valerolactone compound according to claim 5 or 6, wherein said base is one or more compounds selected from the group consisting of potassium hydroxide, sodium hydroxide, potassium methoxide and sodium methoxide.

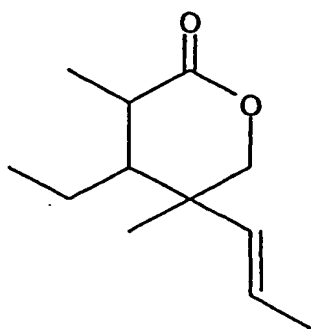
8. A perfume composition comprising a valerolactone compound represented by the formula (I):



(I)

wherein each of  $R^1$  and  $R^2$  is independently a hydrogen atom, a methyl group or an ethyl group wherein when  $R^1$  is a hydrogen atom,  $R^2$  is not a hydrogen atom; and wherein when  $R^2$  is a hydrogen atom,  $R^1$  is not a hydrogen atom.,  $R^3$  is a hydrogen atom or a methyl group, and  $R^4$  is a propyl group, a 1-propenyl group or a phenyl group.

9. A perfume composition comprising a valerolactone compound represented by the formula (II):

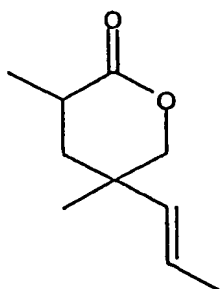


(II)

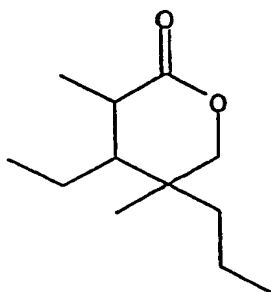
10. A perfume composition comprising the valerolactone compound as defined in claim 3.

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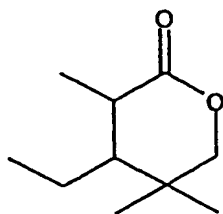
11. The perfume composition according to claim 8 or 9, further comprising one or more compounds selected from the group consisting of the following compounds represented by the formulae (III) to (VII):



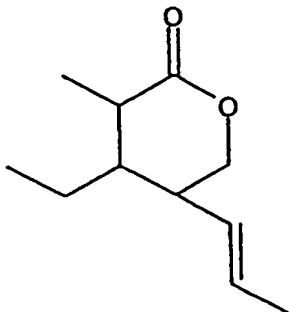
(III)



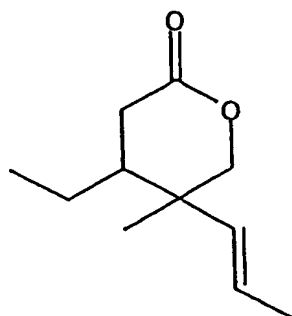
(IV)



(V)



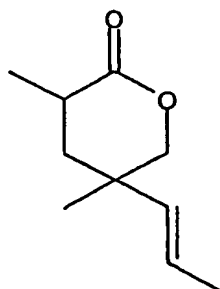
(VI)



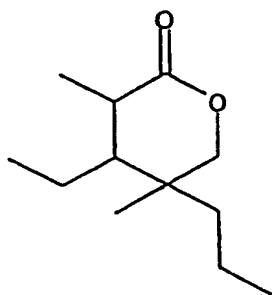
(VII)

12. The perfume composition according to claim 8 or 9, wherein the content of said valerolactone compound is at least 0.001% by weight.
13. The perfume composition according to claim 9, wherein the content of said valerolactone compound is at least 0.2% by weight.

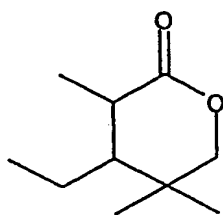
14. A perfume composition comprising two or more compounds selected from the group consisting of the following compounds represented by the formulae (III) to (VII):



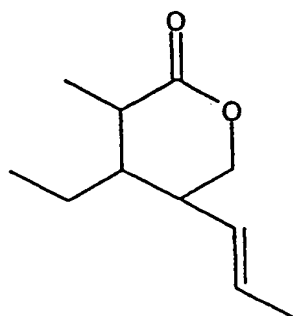
(III)



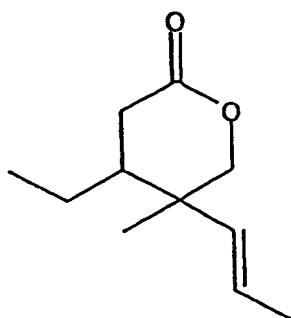
(IV)



(V)



(VI)



(VII)

15. The perfume composition according to any one of claims 8 to 10, further comprising a perfume of which main starting material is a camphorenal.

16. The perfume composition according to any one of claims 8 to 10, further comprising one or more compounds selected from the group consisting of the following components (A):

(A) 2-ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol, 3-methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)-pentan-2-ol, 2-methyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-butanol, 3,3-dimethyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)-4-penten-2-ol, 3-methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)-4-penten-2-ol, 2-methyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol, and optical isomers thereof.

17. The perfume composition according to claim 16, wherein the weight ratio of the compound represented by the formula (I) to the component (A) is at least 1:100,000.

18. The perfume composition according to claim 16, wherein the weight ratio of the compound represented by the formula (I) to the component (A) is at least 1:500.

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19. A household product comprising the perfume composition as defined in any one of claims 8 to 18.

20. A personal care and cosmetic product comprising the perfume composition as defined in any one of claims 8 to 18.

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21. An environmental hygiene product comprising the perfume composition as defined in any one of claims 8 to 18.

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22. A beverage comprising the perfume composition as defined in any one of claims 8 to 18.

23. A food comprising the perfume composition as defined in any one of claims 8 to 18.

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